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Copy for information of Mr. Miller

RECORDS OF INSECTS ATTACKING FOREST PRODUCTS AND SHADE TREES IN WASHINGTON AND OREGON -- 1937

R. L. Furniss
Forest Insect Investigations,
Bureau of Entomology and Plant Quarantine,
United States Department of Agriculture,
Portland, Oregon.

During the course of a year a great many requests are received at the Portland Forest Insect Laboratory concerning control of insects attacking forest products and shade trees. These requests furnish us with valuable information relative to the more important pests in these two groups. In addition, records of unusual interest are occasionally obtained from this source.

Since there is little difference in the climate and forest cover of coastal British Columbia, Washington, and Oregon, many forest insects, including those that attack forest products and shade trees, occur throughout this region. It is believed, therefore, that the following comments, which concern the more important records obtained from our service work during 1937, should be of interest to this meeting.

FOREST PRODUCTS

Ants. Twenty-four inquiries, a greater number than for any other pest, were received concerning control of ants, chiefly those in dwellings. Calls came in every month except January, February, and December. Sixteen of these calls concerned

carpenter ants, Camponotus. Camponotus maculatus subsp. vicinus Mayr. var, was the only carpenter ant definitely identified, although it is probable that C. laevigatus Smith was also present. In no case was extensive damage noted. These ants prefer to construct their nests in openings between floors and walls and only occasionally do they mine extensively in building timbers. A survey is needed to determine the amount of damage to buildings caused by carpenter ants in the Pacific Northwest.

Extensive tests are being made at La Grande, Washington, to determine the most effective of the many measures that have been suggested for control of carpenter ants. These tests are inconclusive at present, but they have indicated that control of carpenter ants is by no means an easy accomplishment.

In mid-September, Lasius niger sitkaensis Pergande swarmed abundantly in several homes. In each case emergence of the winged forms occurred on several warm days extending over a period of two or three weeks. Upon investigation it was found that this ant had constructed its chambers in very moist, rotten wood that had been thoroughly mined by the damp wood termite, Zootermopsis augusticollis Hagen. Control of Lasius in these instances could best be effected by eliminating the rot and termites.

Termites. Next to the ants in number of requests for control were termites. Thirteen calls were received, of which all but one concerned Zootermopsis angusticollis Hagen. Z. angusticollis was noted chiefly in the foundations of homes and wooden structures where it was associated with rot in such a way that structural changes for control of both rot and termites were called for. This relationship between termites and rot has been noted to be the usual occurrence in the Portland area where only occasionally has the damp wood termite been observed to advance any considerable distance into sound wood.

The subterranean termite, Reticulitermes hesperus, has long been known to occur in the Pacific Northwest, but apparently it does considerably less damage here than it does farther south. For the first time in the past eight years a record of damage in Portland caused by this insect came to our attention. In this instance a small colony was found behind the baseboard in a room under which there was no basement. Only a very little damage had been done.

Lyctus sp. Four cases were reported, two of damage to furniture, and two of damage to oak flooring. While our records do not disclose this to be an important pest in Oregon, it is apparently becoming more abundant.

Hadobregmus gibbicollis (Lec.) has been reported occasionally as attacking weathered Douglas fir timbers in buildings and bridges in California. Our first record of this type of damage, however, was on July 30, when Mr. William W. Baker reported that it was heavily infesting an old, poorly constructed house in Puyallup, Washington. On October 15 an extensive examination of the house showed that the entire under portion was infested to the extent that replacements were necessitated. Dry, unrotted, Douglas fir wood was attacked. The beetles showed a marked preference for wide-grained wood as compared with narrow-grained wood. Sapwood was much more seriously affected than heartwood. The extensive damage to this home indicates that H. gibbicollis may become a pest of importance in the Pacific Northwest. Mr. W. C. Mathers states that several instances of infestation have been reported in British Columbia.

H. gibbicollis is not restricted to coniferous host material, for it was found on August 6 attacking dying Prunus emarginata near Blaine, Oregon. We have no records of its occurrence on seasoned hardwood products.

Opsimus quadrilineatus Mann. normally breeds in suppressed branches of Picea, Pseudotsuga, Tsuga, and Abies. However, on March 11 this cerambycid was reported to be causing extensive damage to a rustic house in the Mt. Hood recreational area. Pieces of the thoroughly riddled Douglas fir wood taken from a window casing

were brought to the laboratory, where adults were reared. The home owner stated that infestation extended throughout the house, which was built seven or eight years ago. In so far as we are informed, O. quadrilineatus has not been recorded previously as a pest of seasoned wood products.

Buprestis aurulenta L. and B. langi Mann. Year after year requests come in concering the emergence holes of these buprestid borers in Douglas fir flooring, siding, and other parts of houses. While there are many records of remarkably retarded development of these beetles in seasoned wood products, it does not necessarily follow that all beetles that emerge from buildings have been in them since the time of their erection. It is quite probable that in the Douglas fir region eggs may be laid and one or more complete life cycles take place in buildings. Early in July 1937, B. langi emerged in numbers from a large Douglas fir timber that had been in use for eleven years on the municipal docks in Vancouver, Washington.

Polycaon stouti (Lec.) is a native of California and southern Oregon, but frequently reaches the Northwest in shipments of furniture. It is most often found in plywood where it may remain unnoticed for years in the filler layer. Four examples of damage to furniture caused by this bostrichid were reported to us in 1937. In one instance reported from Hoquiam, Washington, on February 27, an adult emerged through the top of a hardwood table that had been in use for ten years.

Callidium antennatum hesperum Csy. quite commonly infests ponderosa pine lumber upon which considerable "wane" has been left. On May 17 adults of this cerambycid emerged from the walls of a log cabin in Lakeview, Oregon. The numerous larvae had made their presence known by the sound of their boring and by piles of borings on the floor of the cabin.

Prionus californicus Newm. prefers to feed in the roots of deciduous trees but will also attack conifers. Several large larvae were taken in February from decaying Douglas fir bridge timbers in the City of Portland.

SHADE TREE INSECTS

Cryptorhynchus lapathi (L.). The mottled willow borer has become thoroughly established on the native willows in the vicinity of Portland, and also at many other places in Oregon and Washington. C. lapathi first came to our attention in July 1933 when J. A. Beal found it heavily infesting willows along the Willamette River. Several years before this it was known to be present in Washington and British Columbia. In 1937 four home owners reported it on ornamental willows near Portland. It is apparently gradually extending its range southward in the Willamette Valley.

Galerucella xanthomelaena (Schr.). Outbreaks of the elm leaf beetle occur in Portland nearly every year. The 1936 infestation was exceptionally heavy due to a slackening of control effort in the previous year. This infestation was materially reduced in 1937 by an intensive spraying program conducted by the City Park Bureau.

Adelges piceae Ratz. In September, mature grand firs on a country estate near Salem, Oregon, were noted to be heavily infested with A. piceae. The infestation on these trees is known to have existed since 1932 and is gradually having a weakening influence on the firs. It causes deformation of the leaf buds and a thinning of the foliage, particularly on the lower branches.

Adelges tsugae Ann. Late in April this insect was found to be killing the shaded lower branches of a western hemlock hedge in Portland.

Stilpnotia salicis (Linn.). In the State of Washington, infestation in nearly all of the old centers was light in 1937. The introduced parasites Meteorus versicolor Wes., Apanteles solitarius Ratz., and Compsilura concinnata Meig. are abundantly established and apparently causing effective control. A native parasite, Tachinomyia similis, has successfully established itself upon S. salicis. Early in July, wilt was noted as a factor of importance in killing nearly full-grown satin moth larvae in

Tacoma, Washington. Extensive scouting in the Rogue River drainage of southern Oregon failed to reveal satin moth in that area. Apanteles solitarius was recovered in Oregon this year for the first time when adults were reared from satin moth larvae collected near Gervais.

The foregoing are considered to be the most noteworthy observations resulting from 178 requests for information concerning insects that reached the Portland Forest Insect Laboratory during 1937.